

**Practice: 326 - Clearing and Snagging****Scenario: #1 - Clearing and Snagging - Light****Scenario Description:**

Removal of vegetation, logs, or other material that impedes the proper functioning on up to 200 linear feet of a stream channel or water course to restore flow capacity; prevent bank erosion by eddies; reduce the formation of sediment bars; and/or minimize blockages by debris. Addresses resource concerns such as water quantity and soil erosion-streambanks.

**Before Situation:**

Vegetation, logs, or other material provide a flow restriction or divert flowing water against the streambank causing excess erosion. Approximately one-third of the channel flow capacity is obstructed. The flow blockage may encourage deposition in the main channel and may alter the established flow channel.

**After Situation:**

Vegetation, logs, or other material have been removed to allow unrestricted flow in the channel and appurtenant structures. Material that poses no blockage threat is left in place to enhance aquatic habitat. Channel bed and banks are in equilibrium with the flow.

**Scenario Feature Measure:** Length of water course or channel

**Scenario Unit:** Linear Feet

**Scenario Typical Size:** 200

**Scenario Cost:** \$3,325.42

**Scenario Cost/Unit:** \$16.63

**Cost Details (by category):**

| Component Name                 | ID   | Component Description  | Unit | Price (\$/unit) | Quantity | Cost     |
|--------------------------------|------|--|------|-----------------|----------|----------|
| <b>Equipment/Installation</b>  |      |  |      |                 |          |          |
| Hydraulic Excavator, 1 CY      | 931  | Track mounted hydraulic excavator with bucket capacity range of 0.8 to 1.5 CY. Equipment and power unit costs. Labor not included.   | Hour | \$122.47        | 6        | \$734.82 |
| Chainsaw                       | 937  | Equipment and power unit costs. Labor not included.  | Hour | \$6.76          | 12       | \$81.12  |
| Truck, dump, 8 CY              | 1401 | Dump truck for moving bulk material. Typically capacity is 12 ton or 8 cubic yards. Includes equipment only.   | Hour | \$62.55         | 8        | \$500.40 |
| Dozer, 80 HP                   | 929  | Track mounted Dozer with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.   | Hour | \$72.16         | 6        | \$432.96 |
| <b>Labor</b>                   |      |  |      |                 |          |          |
| General Labor                  | 231  | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$18.92         | 16       | \$302.72 |
| Equipment Operators, Light     | 232  | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers  | Hour | \$19.19         | 24       | \$460.56 |
| Supervisor or Manager          | 234  | Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.                                     | Hour | \$32.40         | 8        | \$259.20 |
| <b>Mobilization</b>            |      |  |      |                 |          |          |
| Mobilization, medium equipment | 1139 | Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.  | Each | \$276.82        | 2        | \$553.64 |

**Practice: 326 - Clearing and Snagging****Scenario: #2 - Clearing and Snagging - Medium****Scenario Description:**

Removal of vegetation, logs, or other material that impedes the proper functioning on 200 to 400 linear feet of a stream channel or water course to restore flow capacity; prevent bank erosion by eddies; reduce the formation of sediment bars; and/or minimize blockages by debris. Addresses resource concerns such as water quantity and soil erosion-streambanks.

**Before Situation:**

Vegetation, logs, or other material provide a flow restriction or divert flowing water against the streambank causing excess erosion. Approximately one-half of the channel flow capacity is obstructed. The flow blockage may encourage deposition in the main channel and may alter the established flow channel.

**After Situation:**

Vegetation, logs, or other material have been removed to allow unrestricted flow in the channel and appurtenant structures. Material that poses no blockage threat is left in place to enhance aquatic habitat. Channel bed and banks are in equilibrium with the flow.

**Scenario Feature Measure:** Length of water course or channel

**Scenario Unit:** Linear Feet

**Scenario Typical Size:** 300

**Scenario Cost:** \$5,114.74

**Scenario Cost/Unit:** \$17.05

**Cost Details (by category):**

| Component Name                 | ID   | Component Description  | Unit | Price (\$/unit) | Quantity | Cost       |
|--------------------------------|------|--|------|-----------------|----------|------------|
| <b>Equipment/Installation</b>  |      |  |      |                 |          |            |
| Truck, dump, 8 CY              | 1401 | Dump truck for moving bulk material. Typically capacity is 12 ton or 8 cubic yards. Includes equipment only.   | Hour | \$62.55         | 10       | \$625.50   |
| Hydraulic Excavator, 1 CY      | 931  | Track mounted hydraulic excavator with bucket capacity range of 0.8 to 1.5 CY. Equipment and power unit costs. Labor not included.   | Hour | \$122.47        | 10       | \$1,224.70 |
| Chainsaw                       | 937  | Equipment and power unit costs. Labor not included.  | Hour | \$6.76          | 20       | \$135.20   |
| Dozer, 140 HP                  | 927  | Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.   | Hour | \$133.49        | 10       | \$1,334.90 |
| <b>Labor</b>                   |      |  |      |                 |          |            |
| Equipment Operators, Light     | 232  | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers  | Hour | \$19.19         | 32       | \$614.08   |
| Supervisor or Manager          | 234  | Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.                                     | Hour | \$32.40         | 10       | \$324.00   |
| General Labor                  | 231  | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$18.92         | 16       | \$302.72   |
| <b>Mobilization</b>            |      |  |      |                 |          |            |
| Mobilization, medium equipment | 1139 | Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.  | Each | \$276.82        | 2        | \$553.64   |

**Practice: 326 - Clearing and Snagging****Scenario: #3 - Clearing and Snagging - Heavy****Scenario Description:**

Removal of vegetation, logs, or other material that impedes the proper functioning on over 400 linear feet of a stream channel or water course to restore flow capacity; prevent bank erosion by eddies; reduce the formation of sediment bars; and/or minimize blockages by debris. Addresses resource concerns such as water quantity and soil erosion-streambanks.

**Before Situation:**

Vegetation, logs, or other material provide a flow restriction or divert flowing water against the streambank causing excess erosion. Approximately two-thirds of the channel flow capacity is obstructed. The flow blockage may encourage deposition in the main channel and may alter the established flow channel.

**After Situation:**

Vegetation, logs, or other material have been removed to allow unrestricted flow in the channel and appurtenant structures. Material that poses no blockage threat is left in place to enhance aquatic habitat. Channel bed and banks are in equilibrium with the flow.

**Scenario Feature Measure:** Length of water course or channel

**Scenario Unit:** Linear Feet

**Scenario Typical Size:** 400

**Scenario Cost:** \$7,706.20

**Scenario Cost/Unit:** \$19.27

**Cost Details (by category):**

| Component Name                 | ID   | Component Description  | Unit | Price (\$/unit) | Quantity | Cost       |
|--------------------------------|------|--|------|-----------------|----------|------------|
| <b>Equipment/Installation</b>  |      |  |      |                 |          |            |
| Hydraulic Excavator, 1 CY      | 931  | Track mounted hydraulic excavator with bucket capacity range of 0.8 to 1.5 CY. Equipment and power unit costs. Labor not included.   | Hour | \$122.47        | 16       | \$1,959.52 |
| Chainsaw                       | 937  | Equipment and power unit costs. Labor not included.  | Hour | \$6.76          | 30       | \$202.80   |
| Dozer, 140 HP                  | 927  | Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.   | Hour | \$133.49        | 16       | \$2,135.84 |
| Truck, dump, 8 CY              | 1401 | Dump truck for moving bulk material. Typically capacity is 12 ton or 8 cubic yards. Includes equipment only.   | Hour | \$62.55         | 16       | \$1,000.80 |
| <b>Labor</b>                   |      |  |      |                 |          |            |
| General Labor                  | 231  | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$18.92         | 30       | \$567.60   |
| Equipment Operators, Light     | 232  | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers  | Hour | \$19.19         | 40       | \$767.60   |
| Supervisor or Manager          | 234  | Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.                                     | Hour | \$32.40         | 16       | \$518.40   |
| <b>Mobilization</b>            |      |  |      |                 |          |            |
| Mobilization, medium equipment | 1139 | Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.  | Each | \$276.82        | 2        | \$553.64   |